



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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JUN 24 2010

Ref: 8EPR-N

Rhonda O'Byrne, District Ranger
Northern Hills Ranger District
Black Hills National Forest
2014 North Main Street
Spearfish, SD 57783

RE: EPA Comments on Draft Environmental
Impact Statement, Nautilus Project,
CEQ # 20100207

Dear Ms. O'Byrne:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4321, *et seq.*, and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the June 2010 Draft Environmental Impact Statement (DEIS) for the Nautilus Project. This DEIS was prepared by the Northern Hills Ranger District of the U.S. Department of Agriculture Forest Service (USFS) Black Hills National Forest to analyze potential environmental impacts associated with multiple resource management actions within the Nautilus Project area. The project area is seven miles northwest of Rapid City, South Dakota.

The Nautilus Project covers a total of 41,302 acres, including 35,603 acres administered by the USFS and approximately 5,699 acres of interspersed private land. Landmarks within the project area include: White Mansion, Green Top, Green Mountain, Flagstaff Mountain, Pilot Knob, Boxelder Creek, Hay Creek, and Estes Creek. The focus of the proposed action is to modify stand structure across the project area to reduce the potential for widespread mountain pine beetle outbreaks. In addition, the project would reduce the susceptibility of pine stands to high-intensity wildfire, mitigate areas that are contributing to decreased watershed health, and provide opportunities for forestry research. The activities proposed to achieve these goals include prescribed burning, non-commercial thinning, commercial timber harvest, and improved maintenance of the road system.

The two alternatives analyzed in the DEIS are Alternative A and Alternative B. No management actions associated with this project would occur under Alternative A, the No Action

alternative. Alternative B is the Proposed Action and includes silvicultural treatments designed primarily to limit the potential of mountain pine beetle infestations. Treatments are also intended to reduce fire hazard and improve watershed conditions. In addition, a study plan would be established for the Black Hills Experimental Forest. The current Proposed Action (Alternative B) differs from the proposed action that was presented during scoping. Based on issues identified during scoping, the USFS determined that a separate action alternative would not differ appreciably from the proposed action. Therefore, rather than analyzing an additional action alternative, modifications were made to the proposed action to address the scoping issues.

In a December 15, 2009 letter, EPA provided input during the scoping process for this project, and we appreciate that the USFS addressed several of our comments in the DEIS. As a result, our concerns with the June 2010 DEIS have been narrowed to these remaining issues: (1) air quality; (2) aquatic ecosystems; and (3) transportation network. These concerns are the basis for the EPA rating discussed at the conclusion of this letter.

Air Quality

The project area is near the population center of Rapid City, as well as two mandatory Class I Federal areas (Wind Cave and Badlands National Parks) and a Sensitive Class II area (Black Elk Wilderness). In addition to health-based standards to protect ambient air quality, the Clean Air Act requires special protection of visibility in the nation's large National Parks and Wilderness Areas (identified as mandatory Class I Federal areas) and establishes a national goal for "the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I federal areas which impairment results from man-made air pollution." EPA's Clean Air Act implementing regulations require states to submit State Implementation Plans that, among other things, demonstrate attainment of the National Ambient Air Quality Standards, as well as reasonable progress toward the national visibility goal. Actions by Federal Land Managers (FLMs) that lack adequate mitigation of smoke impacts could impede a state's ability to meet Clean Air Act requirements.

The Nautilus Project Alternative B includes approximately 25,350 acres of USFS land on which prescribed burning could occur. Although it is not anticipated that all of this acreage would be burned, it is expected that approximately 1,000 acres per year, for a total of 10,000 acres over the life of the project, would be burned. This significant prescribed fire activity may cause degradation of air quality and visibility in the region. EPA is concerned that the DEIS does not contain any air impact analysis presenting direct, indirect, or cumulative air quality impacts that would be associated with prescribed burning on the large acreage under consideration. Such information is necessary for the decision-maker to ensure protection of air quality and visibility if the prescribed burns are ultimately conducted.

At a minimum, the Final EIS should summarize existing air quality near the project area and should identify smoke sensitive receptors (such as population centers and Class I and Class II areas). USFS should consult with the South Dakota Department of Environment and Natural

Resources for any modeling and mitigation measures required under State regulations or the State Implementation Plan to address Clean Air Act requirements.

In addition to the items discussed above, we recommend that the Final EIS include: (1) discussion of appropriate smoke monitoring techniques and mitigation (including meteorological conditions favorable for mitigated prescribed fire smoke and alternatives to prescribed fire such as mechanical fuel reduction methods); (2) requirements for the incorporation of the Interagency Prescribed Fire Planning and Implementation Procedures Guide (July 2008) into the site-specific burn plans designed for each prescribed burn conducted under this project; (3) adherence to the USFS internal process for managing prescribed fire; and (4) commitment to public notification of pending burns.

Aquatic Ecosystems

Wetlands and Riparian Areas: The proposed action includes six new road-stream crossings on perennial and intermittent streams. The DEIS notes that watershed conservation practices and best management practices (BMPs) would limit impacts, and should provide benefits in the long-run. The DEIS further states that in the short-term, these road crossings would destroy the riparian area in the immediate vicinity of the new road (described as "usually less than 20 feet" each). The DEIS notes that no ground disturbing activities would be allowed within a 100 foot watershed influence zone; therefore, no impacts to wetlands are anticipated. The proposed action also includes road maintenance and decommissioning activities that would reduce connected disturbed areas to benefit riparian areas.

While the DEIS notes that riparian vegetation usually becomes re-established within three years of disturbance, Appendix C Design Criteria and Monitoring, does not establish a timeline for revegetation monitoring. EPA recommends five years. In addition, EPA recommends assessing erosion impacts for three years after road construction is completed. Further, since the DEIS notes that break down of hydrophobic soils resulting from prescribed burns should occur within five years, we suggest post prescribed burn monitoring to confirm expectations that hydrophobic soils break down enough to no longer adversely impact hydrologic processes.

Stream Health: We note that beneficial uses have been assigned to six streams in the project area (Boxelder, South Boxelder, Estes, Hay, Jim, and Little Elk Creeks), and none of these streams have been identified as having impaired water quality. However, we are concerned with the lack of water quality data provided in the DEIS. A brief discussion and summary of the best available water quality monitoring data for the project area should be included in the Final EIS. These data should include fecal coliform and total bacteria counts, nutrient concentrations, and temperature. In addition, stream health information should be provided for Hay and Little Elk Creeks (similar to that provided for Boxelder, South Boxelder, Estes, and Jim Creeks).

In the design of stream crossings, EPA recommends BMPs to prevent sedimentation of surface waters and restoration as soon as possible to prevent sedimentation flow into streams. The BMPs should be inspected and maintained frequently and should be adjusted in response to

inspection findings. Bioengineering methods or soft bank protection to stabilize stream banks are recommended as opposed to riprap to ensure full restoration.

Transportation Network

Although the Nautilus Project DEIS does not address travel management, it references the Black Hills National Forest Travel Management Plan Record of Decision issued on May 10, 2010. The intent of this Forest-wide plan is to designate specific routes that motorized vehicles can use and other routes that are set aside specifically for non-motorized travel. It is expected to reduce the amount of off-road and off-trail travel, which in turn should reduce the amount of soil displacement and erosion associated with such activities. As EPA noted in a May 7, 2010 comment letter on the Black Hills National Forest Travel Management Plan, unless adequate funding is secured, it does not appear that resources will be sufficient for maintenance of the transportation system and enforcement of proposed travel restrictions.

Under the Nautilus Project proposed action, approximately eight miles of new road construction and six miles of unclassified road conversion are required to facilitate vegetation management activities. Although the DEIS is silent on the subject, we assume that these new roads would not be built in any Inventoried Roadless Areas and recommend that the FEIS clarify that point. The DEIS notes that although the new roads would be closed when activities are completed, it is often difficult to effectively close roads in the Black Hills. If the closures are less than 100% effective, negative environmental impacts associated with the new roads could continue. Therefore, EPA recommends that a monitoring plan and schedule be developed to assess the effectiveness of road closures.


EPA's Rating and Recommendation

Consistent with Section 309 of the Clean Air Act, it is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action, EPA is rating this DEIS as Environmental Concerns – Insufficient Information (EC-2). The "EC" rating indicates that EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. The "2" rating indicates that EPA has identified additional information, data, analyses, or discussion that should be included in the Final Environmental Impact Statement. A full description of EPA's rating system is enclosed.

We hope that our comments regarding air quality, aquatic ecosystems, and the transportation network will assist you in further reducing the environmental impacts of this project. We appreciate the opportunity to review and comment on this Draft EIS. If we may

provide further explanation of our comments, please contact me at 303-312-6004, or your staff may contact Amy Platt at 303-312-6449.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Larry Svoboda', with a long horizontal flourish extending to the right.

Larry Svoboda
Director, NEPA Compliance and Review Program
Ecosystems Protection and Remediation

Enclosure

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO -- Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC -- Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO -- Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU -- Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 -- Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 -- Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 -- Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.